

# Stabilizing Intergovernmental Transfers in Latin America

A Complement to National/Subnational Fiscal Rules?

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## Abstract

The traditional theory of fiscal federalism assigns the role of macroeconomic stabilization to the federal government. In addition to this long-standing theoretical result, there is empirical observation that federal governments in developing countries typically have cheaper and more stable access to capital markets, relative to subnational governments.

Drawing on the recent experience of four large federal countries in Latin America—Argentina, Brazil, Colombia, and Mexico—Gonzalez, Rosenblatt, and Webb examine how intergovernmental transfers affect the division of the burden of stabilization across the levels of government, when the nation as a whole faces economic fluctuations. Imposing stabilizing rules on federal transfers that protect subnational governments from fluctuations in the business cycle can serve two purposes. During boom periods, stabilizing rules prevent subnational governments' tendency to increase inflexible expenditures. And during downturns, stabilizing rules place the burden of borrowing at the federal level—the

level most appropriate for macroeconomic stabilization and often the level with superior access to credit.

Despite the logic of these rules, recent experience of the four countries reveals that these rules can be risky, particularly in the face of high GDP volatility. Protection against falling revenues in the downturn constitutes a contingent liability for the central government. Argentina's stabilizing rule contributed to fiscal and political tensions during its ongoing crisis. Colombia is beginning to implement similar rules. Meanwhile, Brazilian and Mexican transfers do not implement such rules and fiscal and economic results do not appear to have fared any worse for this absence. The authors draw on the country experience to establish that certain conditions should be in place before establishing a stabilization rule to federal-to-subnational fiscal transfers—in particular the elimination of long-term structural fiscal imbalances, either within levels of government or across levels of government.

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This paper—a joint product of the Office of the Senior Vice President and Chief Economist, Development Economics, and the Mexico, Colombia, and Venezuela Country Department, Latin America and the Caribbean Region—is part of a larger effort in the Bank to draw on lessons from cross-country experience on fiscal federalism. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Beza Mekuria, room MC4-358, telephone 202-458-2756, fax 202-522-1158, email address [bmekuria@worldbank.org](mailto:bmekuria@worldbank.org). Policy Research Working Papers are also posted on the Web at <http://econ.worldbank.org>. The authors may be contacted at [cgonzalez@worldbank.org](mailto:cgonzalez@worldbank.org), [drosenblatt@worldbank.org](mailto:drosenblatt@worldbank.org), or [swebb@worldbank.org](mailto:swebb@worldbank.org). July 2002. (32 pages)

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**Stabilizing Intergovernmental Transfers in Latin America:  
A Complement to National/ Subnational Fiscal Rules?**

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*In every downturn, states and localities have to cut back expenditures as their tax revenues fall, and these cutbacks exacerbate the downturn. A revenue-sharing program with the states could be put into place quickly and would prevent these cutbacks, thus preserving vitally needed public services.*

Joseph Stiglitz, Commenting on the U.S. government's fiscal stimulus proposal,  
*Washington Post*, November 11<sup>th</sup>, 2001

## **I. Introduction.**

Traditional theory of fiscal federalism assigns the role of macroeconomic stabilization to the federal government (Oates, 1972; Musgrave, 1959). One fundamental justification is that only the federal level has access to monetary policy. Even in terms of fiscal policy, if an economic disturbance is symmetric across regions, then there is the complication of coordinating fiscal responses by subnational jurisdictions. States or provinces represent economic zones with completely open trade and capital accounts within a monetary union. Anti-cyclical fiscal policies at that level of government can lead to offsetting capital flows that limit the impact of attempts to stabilize local unemployment (Oates 1972). For similar reasons, subnational governments face difficulties in responding to localized "asymmetric" shocks with fiscal policy, since the economic impact of the policy will be muted.<sup>2</sup> However, "asymmetric" regional shocks are not the main concern in these paper.<sup>3</sup> Instead, this paper examines how intergovernmental transfers affect the division of the burden of stabilization across the levels of government when the nation as a whole faces economic fluctuations.

In addition to the long-standing theoretical results described above, there is the empirical observation that federal governments often have cheaper and more stable access to capital markets, relative to subnational governments. This is particularly the case in developing countries. It may be more efficient, then, for the developing country sovereign to borrow for consumption smoothing than for their subnational governments to engage in this activity. Intergovernmental transfers that shield subnational governments from part or all of the impact of the downturn would shift the burden of borrowing through the downturn to the federal level.

On the other side of the economic cycle, numerous developing countries have faced short economic booms, lasting only two to three years, during which time subnational governments have rapidly increased spending. Given the high share of wages in the social sector functions allocated to the subnational government, these expenditure increases have been difficult to reverse when the booms end. Superior fiscal planning and fiscal responsibility laws at the subnational level--as discussed in other

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<sup>2</sup> The federal government's tax and transfer system provides some degree of automatic interregional insurance against these asymmetric shocks. The burden of federal government taxation automatically shifts towards the growing jurisdictions, and assistance programs for the poor and unemployed (funded or subsidized nationally) shift their expenditure patterns towards the crisis jurisdiction(s).

<sup>3</sup> There is substantial debate on the potential for supra-national government structure to provide for inter-regional insurance in Europe (e.g., Bayoumi and Masson (1998), Obstfeld and Peri (1998) and Von Hagen and Eichengreen (1996)).

papers at this conference—can serve to alleviate this problem.<sup>4</sup> Many automatic transfer systems are linked to a fixed percentage of current federal levels. A stabilizing rule— withholding revenue increases during boom periods—could assist subnational governments in avoiding the boom-bust trap.

Designing a good rule requires determining whether the economic shock is a temporary or permanent shock, and whether policy makers will be able to determine the difference. If the income shock is permanent, then by necessity subnational governments will have to adjust downwards their expenditures. To stabilize a permanent shock (or if permanence is not known), it would make sense to follow an intermediate path. One alternative is to implement a moving-average type of transfer rule, not fully protecting the subnationals from the required adjustment, but giving them more time to adjust because of their more limited (costly) access to credit. Recent Federal Agreements in Argentina and the constitutional amendment in Colombia, discussed below, contemplate eventually stabilizing on the basis of a moving average.

When establishing a system of subnational fiscal rules, policy makers face a variety of questions. Should states or provinces fire teachers or cut their salaries during economic downturns in order to rigidly comply with balanced budget rules? If not, is it better for the states/provinces to borrow through the downturn rather than the federal government? The other alternative would be a set of individual subnational stabilization funds – “rainy day” funds. Another factor is whether it is credible for the central government to commit to *not* transfer additional funds during the downturn. And a further question, on the upside of the cycle: are subnational governments able to manage the boom periods, generating surpluses during those periods? The focus in this paper is on these public finance problems rather than the regional employment/ regional economy problem. The basic overriding question is whether stabilizing intergovernmental transfers can serve a complementary role to national/subnational fiscal rules, budget planning and debt management. In particular, can they help deal with the boom-bust cycles so prevalent in developing economies of Latin America?

#### *Ideal conditions for stabilizing transfers.*

Ideally the following conditions would be in place before establishing a stabilization rule to federal-to-subnational fiscal transfers:

(i) Subnational governments are credit constrained – rationed in some way out of the market, or subnational governments confront substantially higher cost of borrowing.

(ii) The federal government possesses stable access to credit and quality debt management.

(iii) There are no severe structural fiscal imbalances, either within levels of government or across levels of government. In other words, neither individual level of

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<sup>4</sup> Stein, Talvi and Grisanti (1999) document the pro-cyclical nature of fiscal policy in Latin America and offer institutional explanations for these results at the national level.

government is facing unsustainable cyclically-adjusted fiscal deficits. In addition, the subnational governments are not spending excessively, with financing by automatic federal transfers.<sup>5</sup>

For reasons discussed above, the federal level should play the predominant role in macroeconomic stabilization. Under these circumstances, it would be efficient for the federal level to stabilize federal transfers during the downturn, so that they would be the ones to borrow. Relaxing the assumptions may change the conclusion. If the federal government itself is on the brink of insolvency, or if there are long-term structural imbalances at the subnational level that are being financed by the current system of transfers, then stabilizing transfers may only complicate or even worsen these initial problems.

An additional consideration is whether the scale of a full guarantee imposes undue risk for the central government. The scale of the guarantee will be a function of the degree of fiscal independence of subnational governments. If transfers comprise a high share of GDP, then the cost of the full insurance during the downturn could become excessive and even unbearable. The center may wish to limit its liability with some form of escape clause in the event that the economic recession is deeper or more persistent than originally predicted when the guarantee was designed. The Argentine case illustrates this issue.

There could be reasons, however, to have a rule-based guarantee even in less-than-ideal conditions. Analogous to the design of deposit insurance for banking systems, the worst transfer guarantee may be the one you did not know existed. While the three assumptions above might not hold fully in any Latin America country, it might not be credible for a federal government to commit to no additional transfers during the downturn.<sup>6</sup> In addition, on the upside of the cycle, federal withholding of a portion of automatic transfers could inhibit subnational expenditure increases during those periods (as discussed above). There could be cases, then, when some sort of stabilizing rule could complement national and subnational efforts to establish fiscal rules at both levels of government.

This paper examines federal fiscal performance during the recent economic cycles of four large federal nations in Latin America: Argentina, Brazil, Colombia and Mexico. Two cases – Argentina and Colombia – have stabilizing rules for federal transfers, that go beyond maintaining a fixed share of revenues. The other two countries have alternative arrangements (or no arrangements), which have performed at least no worse in recent years. We analyze how the three ideal assumptions apply in each country, how the rules or lack thereof have affected fiscal outcomes, and what alternative arrangements they have developed to manage the uncertainty of revenues from revenue-sharing.

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<sup>5</sup> Kopits (2001) suggests that a well-designed transfer system, closing vertical imbalances, is a necessary condition for the successful implementation of fiscal rules at the subnational level.

<sup>6</sup> See Tommasi, Saiegh and Sanguinetti (2001) for a general theory of this incentive problem (and other incentive problems) with an application to the Argentine case. Also see Sanguinetti and Tommasi (1998).

## II. Argentina.

### *Fiscal Performance and the Economic Cycle*

During the 1990s, Argentina's economy grew rapidly, on average, but suffered two sharp reversals, one in 1995 and the other in 1999. Since 1999, the economy has suffered a mix of declines in GDP and periods of stagnation. As revealed in the charts A1 and A2, fiscal performance alternated over this period. The federal government reached a small surplus in 1993; however, this result deteriorated and following the 1995 crisis, deficits have been closer to 1.5 to 2 percent of GDP. Provincial deficits, on aggregate, have averaged 1 percent of GDP during the 1990s, and they rose and fell over the economic cycle. Preliminary estimates are that they may have reached nearly 2 percent of GDP last year, while the federal deficit may have been twice that amount on an accrual basis.<sup>7</sup>

It should be noted that, at the federal level, there was a particular burden of the transition costs of social security reform as well as a heavier interest payment burden from the debts of the 1980s and prior decades. At the provincial level, it is important to consider that there is a tremendous variety of experience. Some provinces ran surpluses, others ran only small deficits and those deficits occurred only during the recession years, and some provinces experienced consistently large deficits. Total provincial expenditure varies from around 8 to nearly 35 percent of local GDP, as the system of transfers results in per capita transfers that vary by as much as nine times across provinces.

Chart A3 reveals that provincial expenditures increased as a share of GDP over the 1991-1993 period. Part of this expansion was the final phase of decentralization of secondary education responsibilities to the provinces; however, it would not account for the total increase. In the mid-1990s, expenditures stabilized as a share of GDP, implying pro-cyclical real expenditure cuts to respond to the 1995 recession. During the start of the ongoing recession/stagnation of in 1999, expenditures increased on aggregate, resulting in another bump up in expenditures to GDP. During the late 1990s, in general, aggregate spending was heavily influenced by large expenditure increases in the province of Buenos Aires – the country's largest province (about 38 percent of the nation's population). While there were some procyclical cuts during the crisis of 2000-2001, they were not sufficient to stem the rising expenditures as a share of GDP.

### *Transfers and Guarantees*

Argentina's system of intergovernmental transfers is largely based on automatic revenue-sharing and tax-sharing arrangements. During the 1990s, approximately 90 percent of federal transfers to the provinces have been automatic. The largest of these

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<sup>7</sup> Provincial budget accounts are on accrual basis, while federal accounts are recorded on a cash basis in the historical data of these charts. It should be noted that some deficiencies in the provincial accrual accounting system often result in accrued expenditures that appear in these deficit calculations, but are really expenditures that are eventually canceled; i.e., some false accruals lead to an overestimate of the deficit.



transfer programs is the general “coparticipation” revenue-sharing pool. Through this program, a percentage of federally collected VAT, income and assets taxes are shared with the provinces, according to the 1988 law that govern these transfers.<sup>8</sup> In addition, there are smaller tax-sharing arrangements of fuel taxes that provide funds to finance specific investment programs. The latter traditionally have been shared with the aggregate of the provinces as a fixed percentage share of those fuel taxes. Note that the original legislation for both the general coparticipation pool and the tax-sharing programs did not even smooth transfers within the monthly economic cycle. Funds were to be transferred on a daily basis according to daily federal tax revenues.

The 1988 law established that the share of coparticipation distributed to the provinces – the “primary distribution,” in Argentine jargon -- be set as a fixed percentage of the pool of funds fed by the federal VAT and income taxes – 58 percent to be precise.<sup>9</sup> However, in the early 1990s, there were special “pre-coparticipations” established that siphoned off amounts for the federal government and for specific provinces (Buenos Aires provinces) before these revenues entered the pool that would be divided according to the fixed percentages. In particular, 10 percent of the VAT and 20 percent of income taxes would go directly to the federal government (for assisting in the financing of the social security system<sup>10</sup>), instead of feeding the revenue-sharing pool. In addition, once the general revenue-sharing pool was formed out of the VAT (excluding previous deductions noted above), income, wealth and other shared taxes, another 15 percent deduction would be applied to the pool before the net pool would be shared with the provinces according to the 58-42 percent split. These changes represented structural shifts in the share of revenues to be allocated to each level of government.<sup>11</sup>

At the end of this labyrinth, federal automatic transfers have consumed about one-third of federal current revenues in recent years, representing about 6 percent of GDP. From the provincial point of view, automatic transfers and discretionary transfers finance about half of provincial expenditures, on aggregate. However, this figure is biased by the

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<sup>8</sup> Historically, Argentina was founded as the union of provincial territories. The 1853 Constitution firmly established the federal nature of the country following a period of disputes between federalists and “Unitarians” that plagued the first two decades of independence. In the 1930s, provinces ceded taxing authority to the central government, resulting in the growing importance of transfers during this century.

<sup>9</sup> The actual share of the pool of funds is affected by deductions from specific taxes (“pre-coparticipations”) and another general deduction discussed below. The share of automatic transfers is actually 57 percent, but with 1 percent feeding a discretionary National Treasury Grants (“*Aportes del Tesoro Nacional--ATN*”). Since the latter 1 percent eventually is sent to provinces, we summarize the “primary distribution” as being 58 percent. It would be an exaggeration, however, to say that 58 percent of major federal taxes are devoted to provincial transfers, due to the deductions discussed in the text. About one-third of total federal current revenues are committed to automatic transfers to the provinces.

<sup>10</sup> Note that private sector payroll contributions are collected by the federal government and not shared. Most of the employee contributions then flow to privately managed individual retirement accounts. A number of provincial governments have transferred their public employee pension programs to the national government, while there are a few (mostly the larger) provinces that still have employee pension plans with payroll contributions that they keep at that level of government. In addition, 1 percent of VAT revenues are set aside for provincial pension systems.

<sup>11</sup> This is only a brief overview of the labyrinth of federal to provincial transfers. For more details, see World Bank (1996), IDB (1997), Schwartz and Liuksila (1997) and Tommasi, Saiegh and Sanguinetti (2001).

three largest provinces and the City of Buenos Aires (comparable to a province in its status). The smaller provinces depend upon transfers to finance 80 to 90 percent of their expenditures.

*Start of Stabilizing Rules: Fiscal Pacts of 1992 and 1993.* The Fiscal Pact of 1992 represented a watershed agreement between federal and provincial authorities in a variety of areas, including privatization, structural reforms and some minor revisions to the system of transfers (namely some of the deductions discussed above). In addition, it provided a minimum guaranty for monthly coparticipation transfers of \$725 million (but calculated on a bi-monthly basis). The way the law was stated, the intention was not to respond to external shocks resulting in a typical 3-4 quarter recession. It was established for short-term declines in monthly federal revenues, since any payments of the guaranty were supposed to be “paid back” to the federal government via federal retention of any surpluses above the “floor” during subsequent months.

One year later, the Fiscal Pact of 1993 represented another key agreement in a variety of structural reforms, with a particular focus on gradual reforms of provincial taxation and provincial deregulation.<sup>12</sup> It also raised the minimum monthly floor (starting in 1994) to \$740 million and eliminated the federal government’s right to retain the surpluses in later months in compensation with one proviso – the provinces comply with the tax and deregulation clauses of the Fiscal Pact. This latter clause also stipulated that the government would not try to recover the \$0.9 billion that had been distributed in guarantees resulting from the 1992 Fiscal Pact. The short-term loan had been converted into a grant.

*A Step Further: The Fiscal Agreements of 1999 and 2000.* When the government of Fernando de la Rúa took office in late 1999, another agreement – *Compromiso Federal* -- was reached with the provinces. The main focus of the agreement this time was on the division of transfers; however, there were also some general commitments to provincial tax harmonization and fiscal transparency. In terms of the macroeconomic context, as noted above, 1999 was the worst recession faced by Argentina during the decade with GDP falling 3.4 percent. Nevertheless, the minimum floors established during the 1992 and 1993 Pacts had long become irrelevant due to substantial average economic growth over the 1994-1998 period.

One major component of the Federal Agreement was that during the year 2000, the provinces would receive a fixed amount in automatic transfers.<sup>13</sup> This provided the provinces with predictability in income, but the amount was also designed to allow the federal government to keep a larger share of incremental revenues expected both from an economic recovery and an increase in federal tax pressure. The calculation of the

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<sup>12</sup> It also established the possibility of provinces’ transferring their provincial employee pension system to the national system.

<sup>13</sup> Virtually all automatic transfers were included – both the general revenue-sharing pool and tax-sharing arrangements. This represented a *de facto* simplification of the labyrinth of automatic transfers described above.

monthly fixed amount of \$1.350 billion during 2000 was roughly based on the average of the previous two years.

The Agreement also established that during 2001 the provinces would begin to receive an average of the three most recent years' legal amounts (i.e., an average of what the provinces would have received under existing fixed percentages established in the general coparticipation and tax-sharing laws). In this way, the idea of moving towards a moving average of recent years' percentage shares was put in place. However, in addition, the provinces were offered a minimum guaranty for 2001 that was set at a level 1 percent higher than the fixed amounts of 2000.

It should be noted that this arrangement represented a sizable *expected* loss to provinces in terms of total transfers. To attract the provinces, debt-restructuring deals were offered to smaller provinces, and the federal government promised that they would facilitate larger provinces' debt restructuring via private banks and the multilateral development banks. Plus, they would finance part of provincial employee pension systems' deficits if reforms were made to make the systems consistent with the national system. (Many smaller provinces had already passed their pension systems to the federal government; however, this feature was attractive to the larger provinces that still have their pension systems.)

One year later, this agreement was followed by a more comprehensive *Compromiso Federal Por El Crecimiento y La Disciplina Fiscal*, signed in November 2000 by all provincial Governors, except the Governor of Santa Cruz, a small province in the south. This agreement included a number of clauses for provincial reforms in the area of state modernization, budgeting and the transparency of fiscal accounts. In terms of stabilizing transfers, this new agreement established a timetable for switching permanently to the moving average concept. However, as described below, there would still be guaranteed minimum amounts over transition period.

For 2001 and 2002, the provinces would receive a fixed monthly amount equal to \$1.364 billion. This figure was the guaranteed minimum for 2001 that had been stated in the previous 1999 *Compromiso* (where the actual amount was to be an average of three most recent years). Now it would be both a floor and ceiling for both 2001 and 2002. The amount itself implies an increase of \$14 million, or about 1 percent, over the amount received during 2000.

From 2003-2005, the provinces would start to receive a moving average of the three most recent years shared revenue amounts. In other words, it would be an average of what they would have received according to the old laws during the three most recent years. In case this moving average were to coincide with recessionary or low growth years, a guaranteed minimum amount is set: \$1.4 billion per month in 2003, \$1.44 billion in 2004 and \$1.480 billion in 2005. These minimum amounts represent approximately 2.6 to 2.8 percent increase per year in nominal terms.

Note that it is not clear what the federal government would do with the expected savings from the lower transfers. A fiscal stabilization fund that would lock up the savings so that they could be used later during recessions is not explicitly established by this *Compromiso*, although there is general language stating that this fund would be established in due course. Depending upon what growth rates one assumes, over the five year period, the provinces would lose anywhere from \$1.5 to \$7 billion in transfers that they would have otherwise received.<sup>14</sup>

Any major recessions over the period would have implied that the provinces could break even or come out ahead. As it turned out, the floor did not strongly favor the provinces during the first half of 2001. In addition, the federal government created a new financial transactions tax with the revenues proceeding exclusively to the federal treasury. However, during the second half of the year, the fixed transfers would have implied significantly more resources than otherwise would have been the case. For 2001, as a whole, the provinces were to receive about \$2.8 billion (about 1.1 percent of GDP) in transfers beyond what they would have received without the guarantee. This contributed to substantial fiscal, political and social stress during the latter part of the year. Ultimately, the federal government was not able to transfer the full guarantee and arrears accumulated.

### *Subnational Borrowing Rules*

Provinces have access to credit, mainly by using their federal transfers as a guaranty and means of payment for debt service. When federal transfers are deposited on a daily basis to a province's account at the federally-owned *Banco de la Nación*, debt service is deducted automatically and credited to the provincial creditors' accounts. The system has functioned smoothly in terms of effecting payment. However, a number of provinces have fully committed their future transfers over particular time periods. In addition, some provinces have issued bonds overseas with natural resource royalties as the collateral. Finally, a couple of provinces – the City of Buenos Aires and the Province of Buenos Aires – have issued general obligation bonds overseas, with no enhancements.

### *Alternative Revenue Stabilization Arrangements*

In addition to the history of floors and fixed sums and moving averages mentioned above, the federal government has a program of discretionary transfers, *Aportes del Tesoro Nacional*, or ATNs, that are intended to be used for emergency purposes (i.e., asymmetric shocks). However, the emergencies originally contemplated correspond to natural disasters and other such specific events. In practice, much of these funds have been used for political purposes (e.g., one province received the lion's share of these funds for a number of years, due to political allegiances). In brief, these are not really along the lines of the fiscal stabilization approach considered in this paper.

General fiscal stabilization funds do not exist at either the federal or provincial levels; however, a couple of oil-rich provinces have significant savings accumulated from

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<sup>14</sup> See World Bank, *Provincial Finances Update IV*, 2001 ([www.bancomundial.org.ar](http://www.bancomundial.org.ar)).

oil royalties. In addition, one province consistently has incurred surpluses, and as result, the province has significant reserves that could be used during economic downturns. However, in these particular cases, there are no pre-established rules on when or how to use these funds during the downturn.

### *Country Conclusions*

Argentina represents a particularly important case. The intention of establishing a moving average for provincial transfers has a fundamental logic. It would partially insure provincial revenues during prolonged downturns (fully insure for sudden mid-year sharp downturns), and it would allow provinces to adjust gradually to persistent external economic shocks. However, clearly the establishment of fixed floors led to serious complications for federal fiscal management during the latter half of 2001.

It might be instructive to return to the assumptions discussed in the introduction. The first assumption was regarding subnational access/cost to market borrowing. At the start of the 1990s, Argentina's provinces had a limited credit history and limited experience in accessing domestic or international credit markets. Even the better-performing provinces consistently faced higher interest rates than the federal government.

The third assumption was regarding structural fiscal imbalances. In brief, this assumption does not hold, neither within levels or across levels of government. A thorough discussion of this subject would require a separate report. However, a couple of observations are worth bearing in mind, in particular with regards to the vertical imbalance issue. One is the need for long-term federal-provincial tax reform that would grant greater tax-raising potential to the provinces. The other is the discussion of potentially excessive expenditures (financed by transfers) at the provincial level. It is important to note that provincial expenditures (net of transfers to municipalities) represent anywhere from 8 to 33 percent of provincial GDPs. The provinces are responsible for the provision of primary and secondary education, including financial transfers to private schools; public health services (including hospitals); police protection and prisons; along with the administration of most public investment projects. While even a highly efficient provincial government might require 8 or 10 percent of provincial GDP to provide these services, it is most difficult to justify 30 percent of GDP. Ironically, to solve the long-term vertical imbalance problem in Argentina, it may be necessary to change the horizontal distribution of transfers across provinces. In any case, these problems complicate the implementation of stabilizing federal transfers.

Debt management at the federal level was of high technical quality. However, access to credit has been sporadic over the last ten years. The inability to reach budget balance during the growth years of 1996-1998, along with the prolonged recession/stagnation of 1999-2001 resulted in an eventual default on public debt.

Several key lessons emerge from the recent Argentine experience. One is that full insurance against the downturn is particularly risky if automatic transfers comprise a significant share of GDP (6 percentage points of GDP in the Argentine case). Another

lesson is that perhaps long-term federal-provincial fiscal imbalances need to be addressed prior to moving towards a system of stabilizing intergovernmental transfers. Finally, guaranteed minimum amounts, without escape clauses, are particularly dangerous if the federal fiscal situation is unstable and GDP is volatile.

### III. Colombia.

#### *Fiscal Performance and the Economic Cycle*

During the 1980s, Colombia was the good outlier in Latin America, having strong positive growth and fiscal surpluses in most years<sup>15</sup>, thanks to good public management, relative political stability compared with other decades and expanding oil production. While there was some political and fiscal decentralization to municipalities, control of finances remained at the center. The 1990s saw reversals in almost all these dimensions. The deterioration in Colombia stood in particularly sharp contrast to the macroeconomic improvements in most of the rest of Latin America. Colombia's macroeconomic framework changed in the 1990s, as growth slowed, especially after 1995. See figure C1.

As one can see in Figures C2 and C3, subnational revenues have risen almost 3 percentage points of GDP since the mid 1990s and spending has risen almost 4 points. This has led to unsustainable deficits for some subnational governments—some entities and their creditor banks are in serious trouble—although there is not a huge aggregate subnational debt like in Brazil, and not even as much as in Argentina. The fiscal problem has come at the national level, because of revenue declines in the early 1990s, and big increases of both national level spending and transfers to the subnationals, as described above. The last problem prompted the national government to take a new approach in the latest fiscal reform, starting in 2001, discussed in the “guarantees” section below.

#### *Transfers and Guarantees*

In Colombia, decentralization grew out of the deconcentration of national revenues to subnational administrative units. Starting in 1968 a departmental fund for education and health was financed from a fixed percentage of national revenues, and municipalities were assigned 10 percent of the then-new VAT, which was not earmarked. This was designed to solve the problem of ad hoc transfers to supplement inadequate sources of local revenue. Even after 1968 ad hoc transfers remained a problem, as mayors continued to ask the president for help to meet the cost of their new responsibilities. A major review of the system of intergovernmental transfers hardened the subnational governments' budget constraint vis-à-vis the national government and strengthened their own revenue sources (Bird, 1984).

The 1991 constitution (which also made the office of governor an elected post) and Law 60 of 1993 moderately expanded the amount of revenues assigned to departments by broadening the base of the existing revenue-sharing system (the *situado*

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<sup>15</sup> Cyclical fiscal deficits in the early 1980s were quickly corrected.

*fiscal*) to include all recurrent revenues of the government: the value added tax, customs, income tax, and special funds.<sup>16</sup> They mandated a steady increase in the share of these revenues to be transferred to the departments. The share of the *situado* increased from 22.1 percent in 1993—net of one-time adjustments—to 23 percent in 1994, 23.5 percent in 1995, and 24.5 percent in 1996. Thereafter, the constitution committed the government to increasing the share sufficiently “to permit adequate provision of the services for which it is intended.” The sharing formula was to be revised by Congress every five years. For municipalities, the 1991 constitution broadened the base of the existing revenue-sharing system from the IVA to all government current revenues and committed the national government to increase the municipal share from 14 percent in 1993 to a minimum of 22 percent by 2002. Thus the 1991 constitution and Law 60 committed the national government to sharing at least 47 percent of all its current revenues with territorial governments and entities by 2002. This not only took resources away from the national government but also meant that any adjustment it tried to make on the taxation side would be substantially shared with subnational governments, weakening any intended fiscal tightening for the economy.

The 1991–94 reforms also reduced the national government’s discretion in the distribution of transfers. Prior to Law 60, the *situado* was paid directly to teachers and health workers under the ministries of education and health. Law 60 changed this system to one in which the *situado* was transferred directly to each departmental government on the basis of a formula.<sup>17</sup> The distribution of revenue sharing among municipalities—the *participaciones municipales* and the share of the value added tax—was also formula driven: 60 percent was to be distributed in proportion to the number of habitants with unsatisfied basic needs and relative level of poverty (as determined by the Central Statistical Agency), with the remaining 40 percent distributed according to population, administrative efficiency, and improvements in quality of life (all quantitatively defined in legislation). As a transition measure in 1994–98, each municipality was guaranteed at least the amount of VAT transferred in 1992, in constant prices. These guarantees were applicable to only a limited number of municipalities, and thus did not pose a macro-fiscal problem.

Cofinancing funds, derived from a national government program for rural development in the 1970s, have evolved into a program of transfers to municipalities for capital investment needs. The investment funding is important because it provides flexibility in usage, whereas most of the other transfers are earmarked for specific and relatively inflexible current expenses, mainly wages. In 1997 a reform unified the funds, and converted most of them into soft loans managed by FINDETER, a government financial intermediary (Ahmad and Baer 1997; Rojas 1997). The reform improved the coordination and transparency of the investment funds, but along with discretionary

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<sup>16</sup> Revenues from special funds were excluded.

<sup>17</sup> According to Law 60, 15 percent of the *situado* is uniformly distributed to each department and district, and the remaining 85 percent is distributed by a formula taking into account the current number of students enrolled, the number of school-age children not attending school, the number of patients seen by health units, and the number of potential patients based on population.

transfers for universities, they remain important loopholes in the hard budget constraint for states.

The decentralization went beyond just tax sharing, as the political autonomy of the departments and major cities was married with devolution of the education sector, including the powerful teachers union.<sup>18</sup> The union has used its nationwide political clout in negotiations with the central government to demand higher salaries and pensions, along with work rules that sometimes permit major inefficiencies. Their direct supervisors, the department governments, were often glad to see the payrolls expand, because the coalition of teachers and governors had pressed the national government to establish an auxiliary transfer fund to pay for increased teachers salaries. This linked transfers automatically to the negotiation of teacher salaries, and allowed some governors to appoint additional teachers and win favor with this important constituency without having to pay the direct fiscal price.

The old strategy of guaranteeing the subnational governments a fixed share of the national tax revenues was not establishing a hard budget constraint, because political pressure then achieved supplemental transfers on top of that. The new strategy of the government in 2001 was to pass a constitutional amendment (*Acto Legislativo*) that set limits to the growth of total transfers. After the transition, the transfer would equal the moving average of what the transfers would have been in recent years, as calculated according to the regular formula. During the transition of 2002-08 (almost eternity in the context of fast changing fiscal rules), however, the transfers would grow annually at the rate of annual inflation plus 2 percent for 2002-05 and 2.5 percent for 2006-08—creating both a floor and a ceiling.<sup>19</sup> As a ceiling, this would let the national government reap more of the fiscal benefit (all at the margin) from economic growth and stronger taxation. Making such a ceiling was the original objective of the central government, then during the negotiations with congress the target was raised. As a floor, the *Acto* could present Colombia with problems similar to those in Argentina if the economy stagnates or declines; the transfers would still have to grow in real terms even if the tax base declined.

### *Subnational Borrowing Rules*

The subnational governments have less access to credit than the national government, which has actively but not always successfully sought to restrain subnational borrowing. In the 1980s and before, all sub-national borrowing had to have approval from the Ministry of Finance, and it was an exceptional thing. This was natural, since the sub-national entities were appointed representations of the central government and had no political or fiscal autonomy. The ad hoc approval process gradually allowed more freedom for domestic borrowing in the late 1980s and the 1990s, as sub-national political

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<sup>18</sup> Formally the education responsibility was to be devolved to departments and then to municipalities when they met certain standards of administrative competence. In practice, all the departments (even the incompetent ones) received the education sector and payroll by the latter 1990s, and a very few municipalities have been certified to receive them.

<sup>19</sup> However, there was an escape clause on the ceiling. If GDP growth exceeds 4 percent, the ceiling would no longer apply and transfers would increase in proportion to national revenue growth.



and fiscal autonomy increased. Domestic debt of the sub-national governments grew rapidly in the 1990s (from 2.6% of GDP in 1991 to 4.6% in 1997), especially to the banking sector, and reached the crisis point for several entities three times during this period (1995, 1998 and 2000).

Witnessing the high rates of growth of sub-national debt to domestic banks in 1993 and 1994 and the debt crisis of several sub-nationals in 1995, the national government attempted to exert some control over indebtedness. On the supply side, the Superintendency of Banks tightened banking regulations in 1995, which slowed the real growth of sub-national debt for a while, but this regulation was substantially relaxed in 1996 due to political pressures, and indebtedness grew fast again in the following years. A law enacted in 1997, the “traffic-light law”, limited sub-national borrowing according to capacity-to-pay criteria, aimed to prevent excessive indebtedness through a system of warning signals that would prompt direct control from the national government (Perry and Huertas 1997). The law was frequently violated, however; several departments and municipalities got new credits without required permission. When the Ministry of Finance granted special permission for borrowing on the condition of following an adjustment program, the programs often failed to deliver the expected results. In spite of the Bank Superintendency’s new regulations on loan classification and capital-risk weighting, the quality of such subnational loans deteriorated drastically in the late 1990s.

The departments’ debt in Colombia has been problematic partly because they have little discretion over their receipts or spending, most of which is devoted to salaries. Neither the departments nor the creditors took sufficient account of this inflexibility in their *ex ante* evaluations of the ability to pay. In the case of municipalities, the debt crises were related to runaway expenditures financed with the pledge of increasing transfers. Virtually all departments have received repeated relief through these means, however, which indicates that budget constraints have softened and a significant moral hazard problem has developed (Echavarria, et al., 2000). Thus, the Colombian experience with top down ex-ante controls and repeated bailouts has been a disappointment. It is still too early to know if the new (anti-)bailout laws and regulations will finally succeed in establishing a hard budget constraint for sub-national governments.

Other than guarantees and debt bailouts with adjustment programs, there have been no systematic alternate arrangements by or for subnational governments in Colombia to deal with fluctuations in the tax base and revenue sharing.

### *Country Conclusions*

While there may not have been severe long-term structural imbalances, to some extent, Colombia was in the process of establishing the structure of fiscal federalism during the 1990s. The fundamental alignment of expenditures and revenues across levels of government was in a state of adjustment, perhaps making the establishment of guaranteed transfers somewhat risky.

With Law 617 in 2001 the national government imposed some fiscal rules on the departments and municipalities, requiring that they reduce the share of wages in their spending, to increase flexibility, and offering debt rescheduling in return for fiscal adjustment. The effect of the law will become clear only after a few years, as it might reduce the likelihood of another round of subnational debt bailouts, or it might set a precedent for some entities to over-borrow again with the expectation of a bailout.

To avoid unsustainable deficits in a downturn, the national government will need to treat the guarantee obligations like contingent debt, provisioning for them with a build-up of reserves (including debt pay down to give more headroom with creditors), and preparing to make necessary fiscal adjustments.

#### **IV. Brazil.**

##### *Fiscal Performance and the Economic Cycle*

Brazil experienced strong economic growth over the 1993-1995 period, with stabilization of prices occurring with the Real Plan in the middle of that period. Despite this growth, the consolidated public sector's operational balance actually deteriorated, reaching a deficit of 4.8 percent of GDP. If one adds monetary correction (indexation of public debt similar to the inflation component of nominal interest), then the deficit reached 7.1 percent of GDP, including public enterprises. Subnational governments were responsible for more than half of this deficit.

In subsequent years, economic growth decelerated with growth slowing to less than 1 percent of GDP during the period leading up to and following the devaluation (1998-1999). Public spending reacted pro-cyclically. In particular, states and municipalities reduced primary spending by 2.8 percentage points of GDP from 1995 to 1999 – 2.3 percentage points in current expenditures and 1 percentage point in capital expenditures – but most of this adjustment occurred during the slow-growth years of 1998-1999.<sup>20</sup> At the federal level, expenditure restraint by the central administration was offset by increasing social security benefits. However, the federal government was able to generate substantial primary surpluses due to increased tax revenue as a share of GDP – mostly in terms of personal income taxes, earmarked social taxes and a new tax on financial transactions that was created in 1997.

In the year 2000, stronger economic growth occurred and, this time, fiscal results were mildly counter-cyclical, with primary surpluses increasing slightly as a percent of GDP. However, this behavior was exhibited by state and local governments and public enterprises while the central government experienced a decline in its primary surplus of 0.5 percentage points of GDP. Interest payments declined substantially, resulting in a marked improvement in the PSBR from 10.5 percent of GDP in 1999 to 4.5 percent of GDP in 2000.

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<sup>20</sup> Data from IMF, *Brazil: Selected Issues*, January 2001.

Preliminary fiscal results for 2001 show that primary surpluses remained roughly about the same level as 2000 (in percent of GDP), with GDP growth of 2 percent – somewhat below expectations. Unfavorable exchange rate and interest developments (with most public debt indexed to either the exchange rate or variable interest rates) implied an increase in the overall PSBR back up to an estimated 8.2 percent of GDP for 2001.<sup>21</sup>

### *Transfers and Guarantees*

Most intergovernmental transfers in Brazil are automatic. From the federal to the state level, the main transfer program is the State Participation Fund (FPE), and the states' share of taxes that feed the Fund is based on fixed percentages of the particular taxes. In brief, there is no stabilizing component.

The 1988 Constitution established that the shares of particular taxes corresponding to the states would gradually be increased to 21.5 percent of federal income and industrial products' taxes, with this percentage in place starting in 1993. (In addition, municipalities have a Participation Fund which receives 22.5 percent of those federal taxes since 1993.) States are also entitled to an additional 10 percent of industrial products' taxes – distributed in proportion to states' exports. The federal government keeps all the revenues from social security payroll contributions and special social contributions, as well as the newer financial transactions tax.

One interesting episode from the mid 1990s is noteworthy. To support the *Real* Plan in 1994, a constitutional amendment temporarily allowed the federal government to reduce the percentage of taxes earmarked for specific purposes, including state and municipal transfers, via a Social Emergency Fund.<sup>22</sup> While the subnational issue was only one part of the package, the original intention was to reduce the state and municipal shares of the Constitutional funds discussed above. The end result, however, was only a minor reduction in transfers to states and municipalities.<sup>23</sup> State transfers remained largely proportional to federal income, but the Social Emergency Fund did allow the federal government to hold back a small amount of transfers during the growth years of the mid 1990s.

### *Subnational Borrowing Rules*

In the past, states have had substantial access to credit in order to borrow through the economic cycle, and more importantly, to finance long-term structural deficits. The resulting high levels of indebtedness and a series of federal government-led debt restructurings are well documented (Mora and Varsano, 2001; IMF, 2001; Bevilaqua,

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<sup>21</sup> IMF Letter of Intent and Memorandum of Economic Policies signed by the Brazilian government, November 30, 2001.

<sup>22</sup> Ter-Minassian (1997).

<sup>23</sup> Income tax of federal employees would no longer be included in the FPE or the municipal FPM, and some other small taxes had state/municipal revenue shares reduced. See Afonso, Carvalho and Spindola (1994) for more details.

2000; World Bank, 1995). With tight indebtedness restrictions imposed through the last debt restructuring deal, states now have a more limited ability to borrow through an economic slowdown. The fiscal responsibility law has established another legal landmark in establishing numerical limits on indebtedness.

### *Alternative Revenue Stabilization Arrangements*

Some states (e.g., Bahia) have initiated public savings funds, using privatization proceeds for initial capitalization of these funds. These initiatives provide some prospects for states to create systems of own-insurance for fiscal shortfalls. However, for the most part, these savings funds have been established as state employee pension plan savings to counter-balance future pension liabilities.

On the expenditure side, fiscal responsibility legislation places restrictions on expenditures during election years, and this might help avoid pro-cyclical spending if an economic boom happens to coincide with an election. The legislation aims to avoid payroll increases during the six months prior to elections and it prohibits accruing payment arrears on expenditures during an election year.

### *Country Conclusions*

States borrowed through downturns, but more importantly, many states borrowed to finance long-term structural imbalances. High state indebtedness, on aggregate and in a majority of jurisdictions, was the result. Periodic federal debt restructurings followed and over 90 percent of state debt is now owed to the federal government, the Central Bank or federally-owned banks. However, these are long-term issues, and perhaps the last round of debt restructuring has put a close on this sequence of events.

Deficits have been reduced substantially, to the point where substantial primary surpluses would be sufficient to assure fiscal balance, or near balance, once interest rates fall to more reasonable longer term levels. As the federal and state governments jointly strive to resolve fiscal balance – with fiscal responsibility legislation as a guide—would Brazil be in a position to implement stabilizing fiscal transfers? There could be scope for stabilizing transfers to assist states in achieving the targets of fiscal responsibility laws. For example, at the state level, the fiscal responsibility law requires a maximum level of personnel as a share of net current revenues.<sup>24</sup> During future economic booms, states might be tempted to ratchet up inflexible personnel expenditures. In principle, a stabilizing rule that would hold back some of the Participation Funds during the boom might complement fiscal responsibility legislation – in particular for some of the smaller, poorer states where federal transfers represent a substantial share (40-75 percent) of (net) state revenues.<sup>25</sup> Politically, however, this might not be acceptable.

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<sup>24</sup> “Net” of transfers to municipalities.

<sup>25</sup> For some small states in the Amazon region, federal transfers represent 85-90 percent of net state revenues (Bevilaqua, 2000).

## V. Mexico.

### *Fiscal Performance and the Economic Cycle*

During the 1990s, Mexico's economy grew rapidly, on average, but suffered a sharp reversal in 1995. This crisis destroyed the financial system, and paralyzed credit flows. As revealed in charts M1 and M2, federal level deficits started a year before the crisis when several problems arose which led to foreign capital outflows that triggered the 1995 crisis.<sup>26</sup> Afterwards, while fiscal adjustment was restoring stability, institutional and policy reforms to improve the functioning of markets included switching the exchange rate regime from fixed to flexible and restructuring foreign debt from short to longer term. Also public spending was decentralized to state and municipal governments.

The 1994-1995 financial crisis, and the ensuing increase in interest rates, expanded the states' debt stock in real as well as nominal terms, but the bailout package put in place by the federal government in 1996-97 reduced it considerably. Aggregate state-level deficits were close to zero since 1995 and subnational debt declined in real terms in most years. In 1997 subnational government debt represented 25 percent of the debt owed or guaranteed by the Ministry of Finance and Public Credit (Secretaría de Hacienda y Crédito Público, SHCP), 10 percent of total public debt, and only about 2 percent of national GDP. By the late 1990s only the newly autonomous Federal District was expanding its debt in real terms. Most others were paying down their debt or only letting it grow through the inflation indexation of the principal of the restructured debt (Giugale and Webb, 2000). The growth of subnational spending for public services and capital investments (in health, education, and basic infrastructure) and indebtedness does not yet pose a major threat to Mexico's macroeconomic stability. Even during the 1995 crisis, subnational government spending and receipt of transfers merely halted their growth as a share of GDP and thus only declined as much as the overall economy suffered a major cut. Subnational public investment dropped about 0.3 percent of GDP. See figures M2 and M3

### *Transfers and Guarantees*

As in many other countries in the world, transfers account for 80 to 95 percent of subnational governments revenues. The two main categories of transfers are *participaciones* and *aportaciones*. The most important element in the Mexican federal transfer system was, until December 1997, the revenue sharing (*participaciones*) determined by the National System of Fiscal Coordination (Sistema Nacional de Coordinación Fiscal) from 1980 onward. *Participaciones* were originally revenues of states and municipalities whose collection was delegated to the federal level for administrative efficiency reasons via a Fiscal Pact. Legally, the federation only collects

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<sup>26</sup> In 1994 several problems arise in the country, starting from the uprising of the zapatista movement, the assassinations of the PRI presidential candidate and general secretary as well as the presidential election.

taxes and distributes the proceeds to their original owners – the subnational governments. In practice, the federal government writes the formula for distribution of these funds and augments them from federal resources, like oil revenues, so they are different from tax sharing and are more like a transfer of the general revenue-sharing type. Most of these transfers are distributed under Ramo 28. The transfers to states from revenue sharing within Ramo 28 were almost six times as large as states' own revenues in 1996. This part of subnational government revenue is automatically procyclical.

The assignable or shared taxes *Recaudación Federal Participable* (RFP) include mainly the federal income tax, the value added tax, and the ordinary fees from oil. States get about 22.5 percent as *Participaciones*. Originally three funds comprised the revenue-sharing system: the *Fondo General de Participaciones* and the *Fondo Financiero Complementario*, which were distributed to states, and the *Fondo de Fomento Municipal*, which was transferred to municipalities via state governments, but according to a federal allocation. The states were also required to transfer 20 percent of these federal revenue shares to municipalities, in accordance with federal allocation.

Far and away the largest transfer is the *Fondo General de Participaciones*, which is 20 percent of RFP. While the allocation formula for this fund has changed over the years, since 1993, the allocation has been as follows:

- 45.17 percent is distributed to the states on an equal per capita basis.
- 45.17 percent is allocated on a historical basis, starting with the states' own revenues just before the system started in 1980 and modified gradually by relative tax effort.
- 9.66 percent is allocated in a way that compensates the previous two allocations.

*Apportaciones* account for just over half of federal transfers and are allocated to states with earmarking to pay for federal commitments such as education and health, and transferred to the states and municipalities together with those commitments. These funds, formerly under Ramo 26, now are distributed under Ramo 33, which now has 9 different funds. The transfer related to education (FAEB) is by far the largest and covers the payroll of federal teachers, which was decentralized to the states through an agreement reached in 1993 (Latapí and Ulloa 1998; Merino 1998). The second largest component of *Ramo 33* is the transfer related to health (FASS). FASS covers the payroll of health personnel that attend the uninsured population. This part of the health system was decentralized to the states through an agreement reached in 1997.

The size and allocation of *Ramo 33* is specified year-by-year in the *Ley de Egresos* (Spending Budget) after being discussed and approved by Congress. While the major funds are backed by strong political commitments, the size is adjusted to stay within the macro-fiscal limits that are set in the *Ley de Ingresos* that is discussed and approved first. This reduces the likelihood that *Ramo 33* would lead to unsustainable spending and deficits at the federal level. The allocation is specified for the whole year, however, protecting much of the subnational revenues from any macroeconomic

fluctuation that was not foreseen in making the original budget. Those adjustments are absorbed by the rest of the federal budget.

Some *Ramo 23* funds relate neither to previous revenues of the states nor to previous responsibilities of the central government. Once they were partly at the discretion of the president, but then most of them went into the Fund for Strengthening State Finances that individual states negotiated with federal ministries, mostly SHCP. In 1998 and 1999, discretionary transfers under *Ramo 23* declined to less than one tenth of their pre-1995 value and in the 2000 budget, these transfers -- at the discretion of the executive—were eliminated completely.

In brief, there is no stabilizing component to automatic federal transfers to the states in Mexico. Discretionary transfers for smoothing the economic cycle have been limited or recently eliminated.

### *Subnational Borrowing Rules*

Subnational indebtedness was not a major threat to Mexico's macroeconomic stability because its share in the portfolio of the financial system was relatively small. Two factors explain the relatively small size of aggregate debt. First, subnational governments have limited borrowing capacity and access to capital markets. Secondly, the frequent implicit and explicit bailouts by the federal government softened subnational governments' budget constraints before their fiscal shortfall became debt; that is, the federal government absorbed their potential debts. In particular, the second factor was a consequence of ad hoc interventions by the federal government through ex post, extraordinary and discretionary transfers. This second factor, in general politically motivated, indicated that the intergovernmental relationship in Mexico still embodied many channels that led to moral hazard incentives.

Subnational governments can borrow primarily from development banks and commercial banks. Other sources are available but rarely used by the states until recently. The Constitution states that subnational governments can borrow only in Mexican pesos and only from Mexicans, and they can borrow only for productive investments after receiving authorization from the local congress.

Most loans are collateralized with *participaciones*, although other revenue flows can be used, especially for loans to revenue-generating public enterprises. Before 2000, in case of arrears or default, the federal government would deduct debt service payments from revenue sharing before the funds were transferred to states each month. Municipalities could incur debt, but the state had to guarantee it. For *participaciones* to be used as collateral, states only needed to register the new debt contract with the Secretariat of Finance (SHCP), after receiving authorization from the local legislature. SHCP could deny the new debt and thus control the indebtedness of subnational governments, but rarely took such action.

To induce market discipline in subnational borrowing, the law was reformed in 1997 (on paper) to confer new obligations on state and local governments. In practice,

these obligations took effect in 2000. Subnational governments could still use debt to finance their investment projects, and many still use their federal transfers as collateral. However, banks could not ask SHCP to discount the corresponding amount from defaulting state's federal transfers. They had to arrange the collateral according to state debt laws; that is, both parties had to create a repayment mechanism. In addition, states were obliged to publish their level of debt, and secure credit ratings from two international rating agencies. Without guarantees from the federal level, banks had to begin to evaluate the risk of the project.

### *Alternative Revenue Stabilization Arrangements*

With no federal guarantees for the transfers, Mexican states have made other arrangements, especially since some states had governors from different parties from the President (and thus could not count on federal help) and since the end of discretionary transfers and debt bailouts. One arrangement is that the *aportaciones* adjust automatically to reflect changes in the salaries of the formerly federal teaching force. While this has some advantages in protecting states from this cost-side shock, the negotiation of teachers' positions (and work rules) at the federal level deprives the states of the control over this large component of their work force. Also, the federally negotiated teachers' salary has spill-over effects on the other salaries that the state must pay without automatic federal compensation.

To compensate for their restricted access to credit, some states – like the state of Mexico, the largest state – used arrears or “floating” debt, but this tactic reached its limit in 2000, and since then the state has adjusted strongly in order to reduce its debt. Since the 1995 experience, some other states, including Guanajuato, Veracruz, Guerrero, and perhaps many others have followed a much more prudent route of running fiscal surpluses to build reserves, Rainy-Day Funds, that can cover fluctuations of revenue and outlays during the year and sometimes even during national recessions. These Rainy-Day funds do not have explicit deposit and withdrawal rules like in the United States.

### *Country Conclusions*

Given the difficulty for the national government to stabilize its own income and the outstanding contingent liabilities for financial sector restructuring and public pension reform, it is probably best that the federal government does not provide guaranteed floors on revenue-sharing or other transfers. This gives the states incentives for precaution, which may help Mexico avoid the macro instability suffered in the past. The new regime since 2000 for limiting subnational borrowing seems to be off to a good start. The current transfers system seems to be a relatively sound way to shield the subnational governments partly but not totally from macroeconomic shocks. The system guarantees the states access to a stable share of national revenue, which gives them unconditional funds for almost half of their total needs, and then guarantees that the education and health transfers, which cover the majority of the cost in those sectors, will adjust according to the wage agreements made at the national level. While serious problems remain with the division of management responsibilities in the social sectors, the system



of mixed guarantees seems to be a good one, and gives the states incentives to increase their own revenues by taking advantage of the new tax on final sales recently approved by Congress and to create budget stabilization funds with explicit rules.<sup>27</sup>

**Box 1. State Rainy-Day Funds. Lessons from the United States.**

During the last two decades, virtually all of the US states have adopted budget stabilization funds, often called “rainy-day funds,” that require them to save for unexpected revenue shortfalls. Prior to the recession of the early 1980s, 9 out of 50 states adopted rainy-day funds (Gold (1981), Knight and Levinson (1999a)). By 1984, 18 states had enacted rainy day funds, and today almost all have them (Advisory Commission on Intergovernmental Relations, 1995, and Gonzalez, 2002). These accounts are designed to help state governments stabilize public spending over time. In 2000, rainy day fund balances averaged \$158 per capita, or 3.22 percent of total state expenditures (Gonzalez, 2002).

The characteristics of state rainy-day funds differ across states -- in particular, in terms of their deposit and withdrawal rules as well as the fund's size. Some state's laws mandate deposits to rainy day funds in certain years. “For example, some states must deposit their fiscal-year-end surplus into the fund, while other states, deposits are determined by a formula tied to the performance of the state economy. At the other extreme, some states only deposit funds into rainy day funds through occasional legislative appropriation. Some states have maximum limits, or caps, on fund sizes. These limits range from 2 percent to 25 percent of expenditures. The most common limit is 5 percent, the generally accepted minimum level of total balances by credit rating agencies (Eckl, 1997), and the amount suggested by the National Conference of State Legislatures (Sobel and Holcombe, 1996). Also, fund provisions differ in the availability of the balances for expenditure. Some states require only legislative appropriation for withdrawal, making the funds a politically attractive source of spending. Other states have provisions requiring that funds be used only in years of economic downturn (determined through formulas) or in the case of a revenue shortfall or a deficit.”<sup>28</sup>

Sobel and Holcombe (1996) show that states with rainy day funds suffered less fiscal stress during the 1990-1991 national recession, where fiscal stress is measured by how much states' expenditures fell below their long-run growth. Also they found that states that have a stringent deposit rule in their rainy day fund account, suffer less fiscal stress. Gonzalez (2002) shows that most of the states are not well prepared for the most recent recession. In particular, he finds that 4 out of 50 states have enough rainy day funds to ease a similar recession than that of the early 1990s. Also, he concludes that the reason why some states do not have enough savings is because they have reached their cap on the fund size.

**V. Conclusion.**

Floors on subnational transfers are a kind of contingent debt of the central government, but they are rarely evaluated as such. While there are good arguments for the central government to make such guarantees, because the subnational governments are more credit constrained at the margin, there is a dangerous tendency for the central government to overuse such floors in circumstances when the national government has little else to offer in intergovernmental bargains.

Fixed nominal transfers or moving averages reduce the contingent liability problem in that on average, the federal government should break even relative to a system with transfers as a fixed percentage of federal revenues. Still, there remain

<sup>27</sup> See box 1 for discussion on the experience of State Rainy-Day Funds in the United States.

<sup>28</sup> Knight and Levinson (1999).

problems with the timing of the start of such a system and financing the initial stabilization fund, since there could be an unexpected recession in the initial years. And the federal level needs effective fiscal rules and savings plans in order not to waste the surplus years.

Below, we return to the three assumptions of the ideal case for implementing stabilizing subnational transfers.<sup>29</sup>

(i) Subnational is credit constrained, rationed out of the market, or substantially more costly. This is true in almost all our cases, although at times subnational entities have secured interest rates close to the federal governments, due to superior creditworthiness or through implicit or explicit federal guarantees.

(ii) The federal government possesses stable access to credit and quality debt management. All the national governments have had this situation at times, but probably only Mexico does now.

(iii) Neither the national nor subnational (as a group) governments face unsustainable fiscal deficits. While the national governments in Argentina and Colombia met this criteria in the early 1990s, they departed from it in the late 1990s. The subsequent offer of guaranteed revenue floors was therefore dangerous, even as the price for a promise of subnational fiscal adjustment.

The scale and flexibility of transfers seems to be critical for which systems are fiscally safe. If transfers to subnational governments are small in overall public finances, either because subnational spending responsibilities are small or because they are mostly funded with own revenues, then the central government may have the fiscal room and credit access to guarantee a floor on transfers. If subnational governments have major spending responsibilities that are mostly funded with transfers; however, then the public sector will find it too costly to give a total guarantee that these transfers will not be affected by adverse economic shocks. In other words, the larger the share of transfers of total public sector revenues, the more that the subnational governments need to share in the risk of a fall in total public sector revenues. The failure to meet this condition seems acute in Argentina, and also in Colombia. A recession, as in Argentina, makes this condition tougher.

There are at least 4 types of own arrangements that states in our samples have to provide themselves with a cushion against macro-fiscal shocks, and thus share in the risk of fiscal downturns:

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<sup>29</sup> It is beyond the scope of this paper to study OECD countries, and discuss whether these assumptions largely hold. In the United States, there is no general automatic transfer system (most transfers are either discretionary financing of public works, or co-financing of social programs like welfare and health care). In Canada, equalization transfers provide automatic insurance, but asymmetrically: “have-not” provinces that do not impact the equalization standard receive additional funds during the downturn (Courchene, 1999).

-Having some margin to increase own revenue. Most Brazilian states and a few Argentine provinces have substantial own revenues. The political as well as economic feasibility of the option to increase own revenues is greater in Brazil, at least for the large states, and perhaps this is partly because there never was a federal promise of minimum floors to shared revenue.

- Keeping spending flexible, especially a deferrable investment program, and not letting close to 99 percent of income going to wages and debt service. Well-managed states everywhere do this, but they are few. The fiscal responsibility legislation of Brazil addresses this issue explicitly.

- Building a state reserve fund. At least a few states in Mexico do this, as they have little opportunity to pursue other alternatives.

- Having a secure credit line, available in times of fiscal distress. Really no subnational governments in our sample have this, except to the extent they can run arrears (some states do this in all four countries) or partially default.

Although none of these alternatives provides a large cushion, together they can add up to enough of a cushion so that at least not all the adjustment burden needs to fall on the central government. The experience in the four countries shows that subnational governments only have the motivation to develop and utilize these alternatives if the easier option of a full federal guarantee is not open. Some rule-based burden sharing of the risk of fiscal shocks seems clearly preferable to an open guarantee that is sure to fail in extreme circumstances, bringing down the whole public finance framework.

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# ARGENTINA

Chart A1

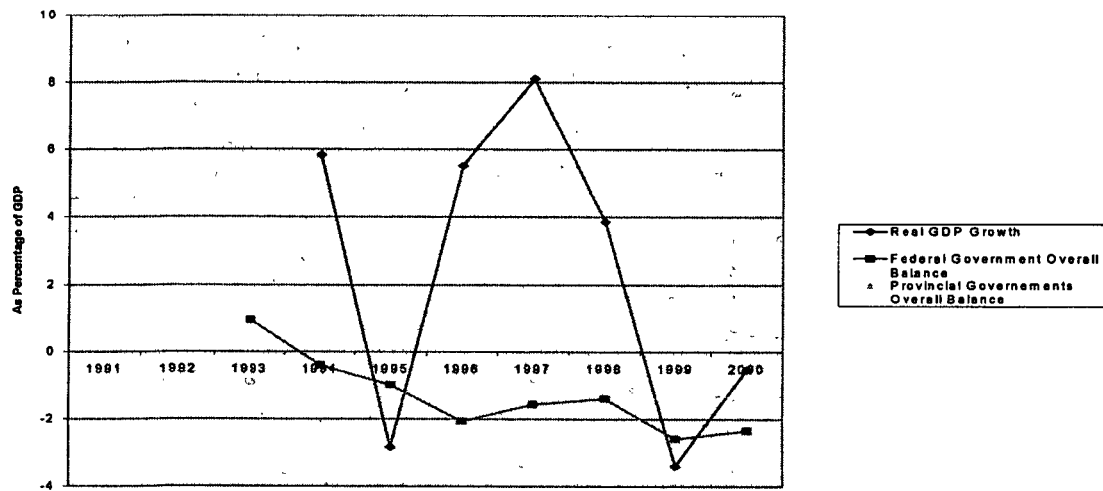


Chart A2

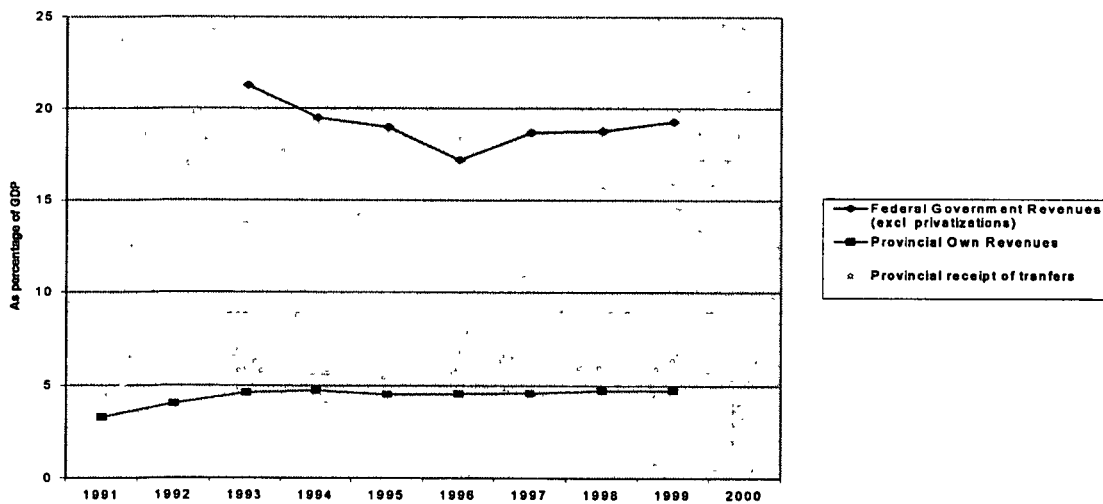
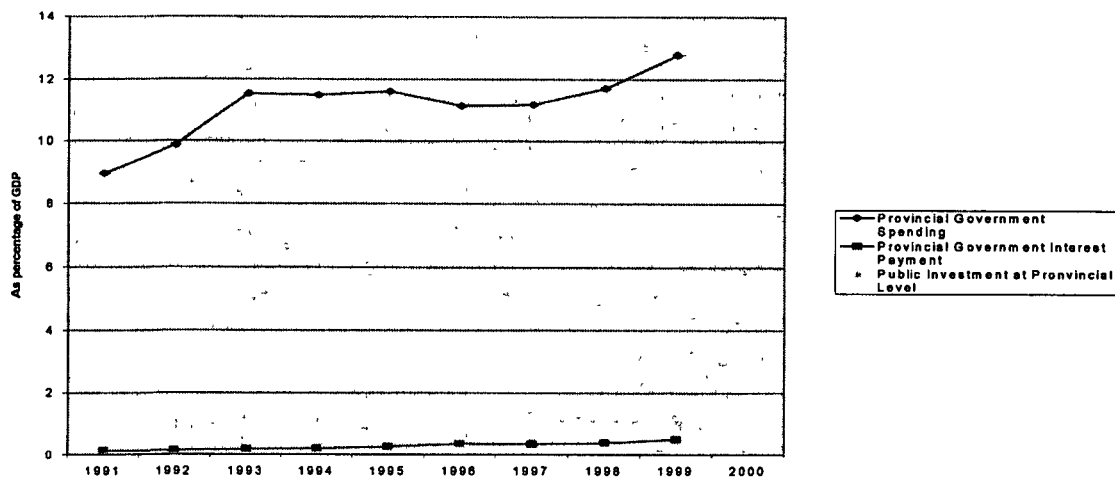


Chart A3



# COLOMBIA

Chart C1

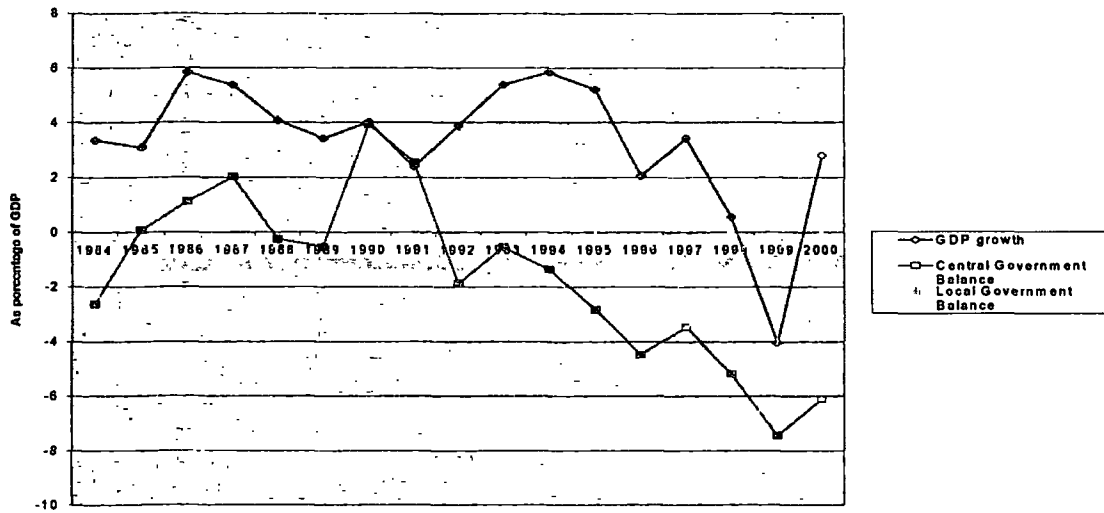


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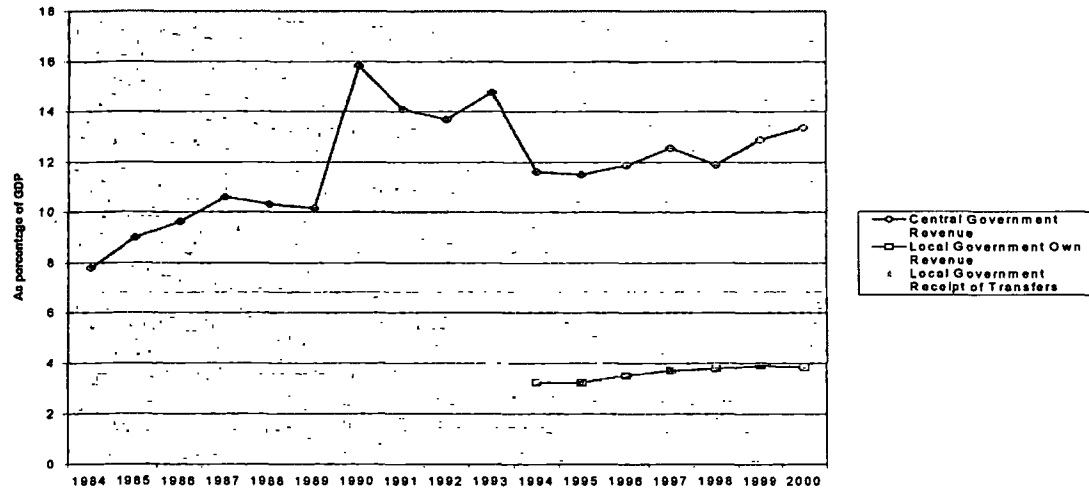
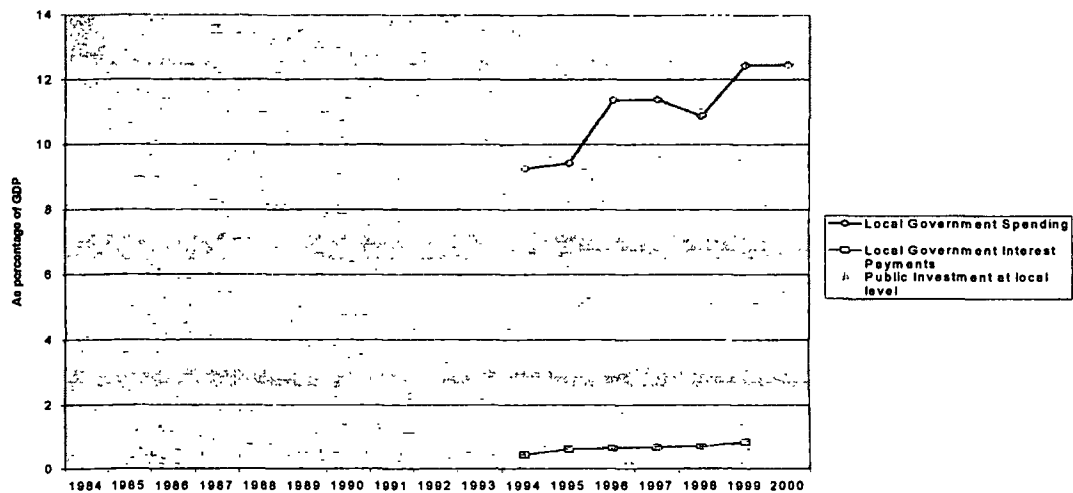


Chart C3





# BRAZIL

Chart B1

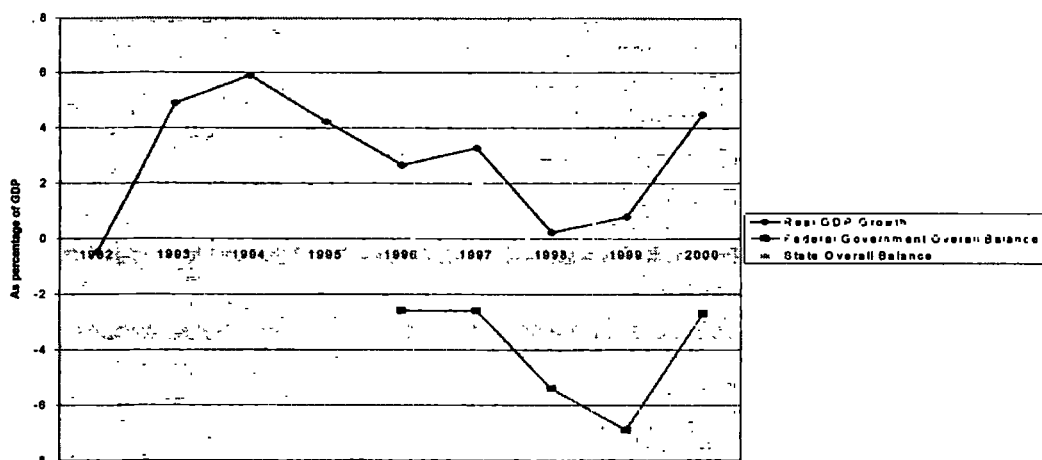


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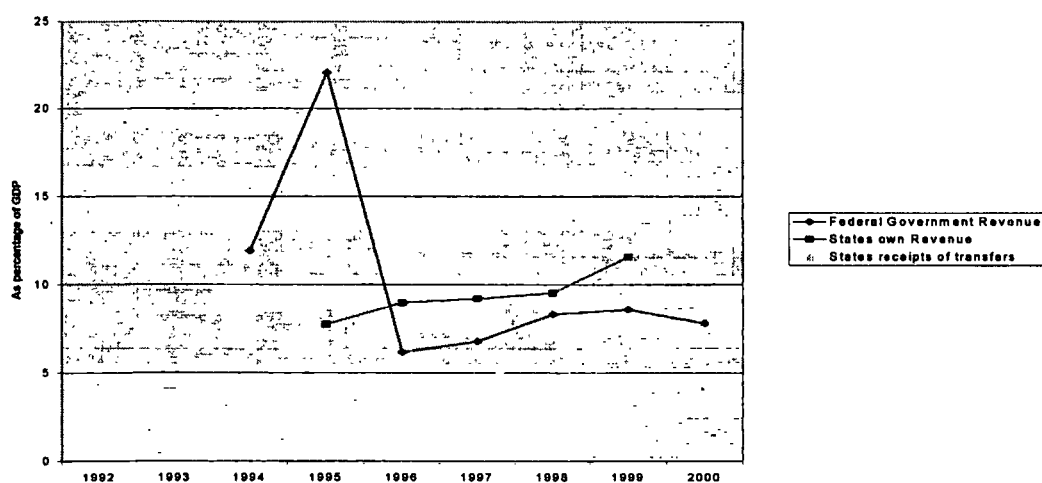
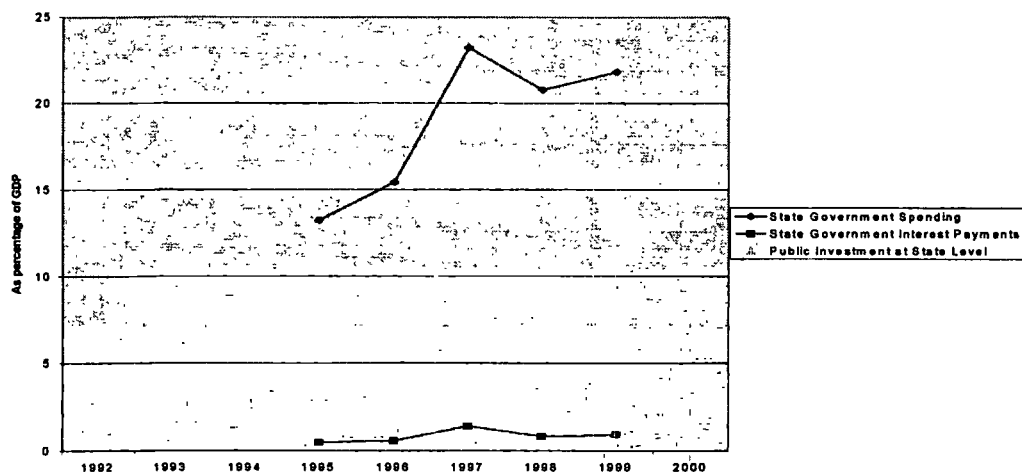


Chart B3



# MEXICO

Chart M 1

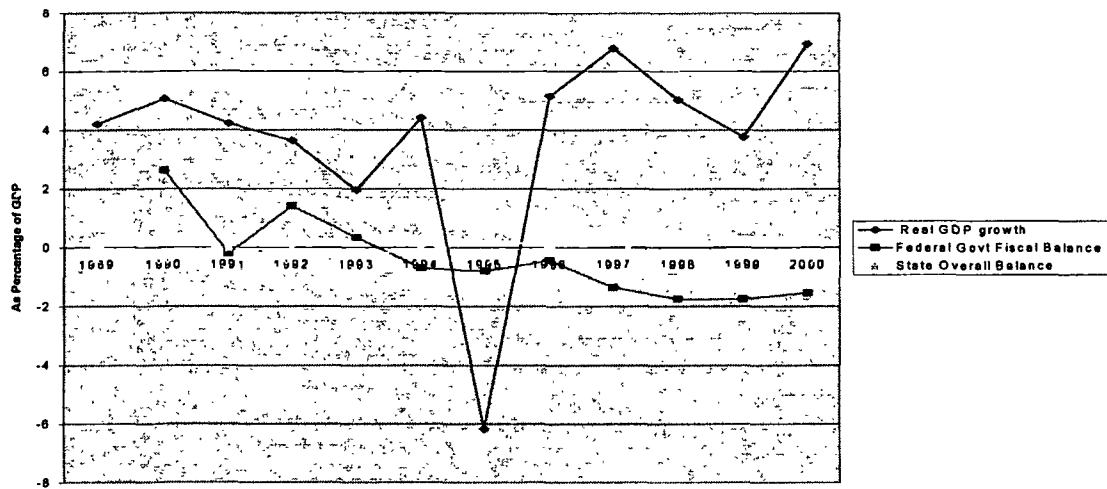


Chart M 2

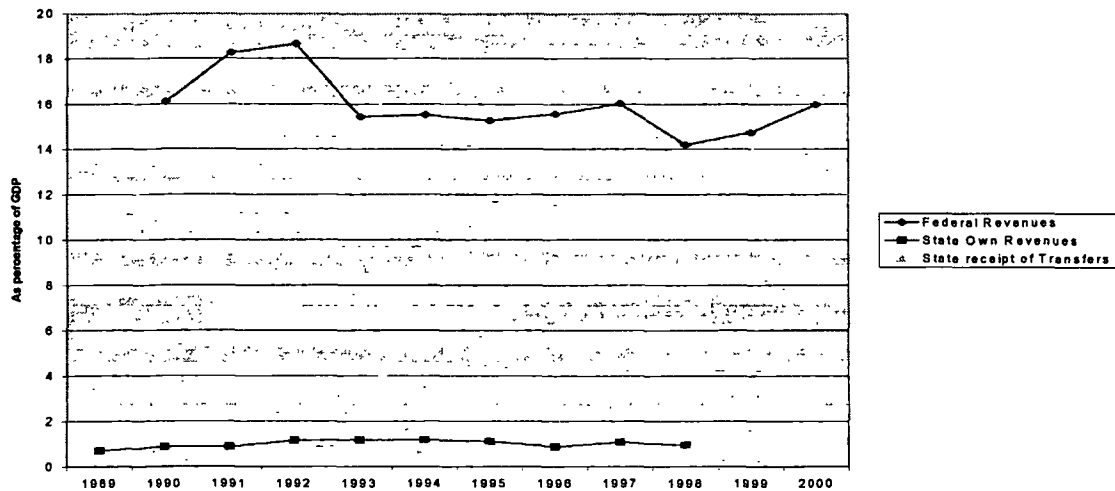
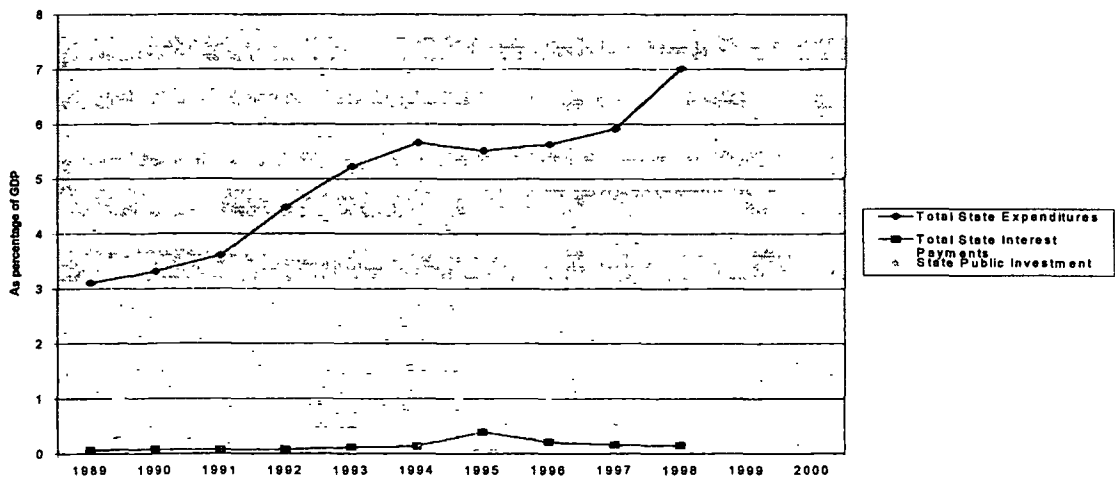


Chart M 3



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